



A.D. 1872, 11th JULY. N^o 2088.

SPECIFICATION

OF

WILLIAM FERN.

APPARATUS FOR ECONOMIZING FUEL
AND CONSUMING SMOKE.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,

25, SOUTHAMPTON BUILDINGS, HOLBORN.

1873.



A.D. 1872, 11th JULY. N° 2088.

**Apparatus for Economizing Fuel and Consuming
Smoke.**

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by William Fern at the Office of the Commissioners of Patents, with his Petition, on the 11th July 1872.

I, WILLIAM FERN, of Cullingworth, near Bingley, in the County of
5 York, do hereby declare the nature of the said Invention for “**IMPROVED
APPARATUS FOR ECONOMIZING FUEL AND EFFECTING THE CONSUMPTION OF SMOKE,**”
to be as follows:—

The object of this Invention is the consumption of smoke by means
of a simple, inexpensive, and self-acting apparatus, which is as follows:—
10 I perforate the plate over or above the furnace door or doors with one
or more holes, and pass through each hole a pipe so as to extend partially
over the fire. To the end or ends of such pipe or pipes outside the
furnace door or doors I attach other pipes; the latter I prefer being
continued to the outside of the boiler house or to such other point where
15 a supply of pure and non-rarified air can be obtained; and such is by the
draught drawn through the pipes or by means of a fan discharged into
the furnace; a degree of heat is imparted to the air so supplied sufficient
to prevent loss of heat or cooling effect on the furnace thereby.

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Printers to the Queen's most Excellent Majesty. 1873.

